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(19) **United States**(12) **Patent Application Publication****Soundararajan et al.**(10) **Pub. No.: US 2017/0098378 A1**(43) **Pub. Date:****Apr. 6, 2017**(54) **AUTOMATED PACKAGE DELIVERY TO A DELIVERY RECEPTACLE**(52) **U.S. Cl.**CPC ..... **G08G 5/0069** (2013.01); **G05D 1/0202** (2013.01); **G06Q 10/0833** (2013.01)(71) Applicant: **GOOGLE INC.**, Mountain View, CA (US)(72) Inventors: **Varun Soundararajan**, Sunnyvale, CA (US); **Anurag Agrawal**, Palo Alto, CA (US)

(57)

**ABSTRACT**

Improving automated package delivery to mobile delivery receptacles to allow accurate and reliable package deliveries comprises a delivery receptacle for an automated package delivery via an unmanned aerial delivery device. The delivery receptacle is notified of a pending delivery and travels to a receiving location. The delivery receptacle emits infrared ("IR") beacons from one or more IR beacon transmitters. An aerial delivery device detects the IR beacon and uses the beacons to navigate to the delivery receptacle. The delivery receptacle receives IR beacon responses from the aerial delivery device and continually or periodically directs the IR beacons in the direction of the aerial delivery device. The aerial delivery device deposits the package in the delivery receptacle. After receiving the package, the delivery receptacle transports the package to a secure location, such as into a garage.

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